

# California Energy Commission

## STAFF REPORT

### LOCALIZED HEALTH IMPACTS REPORT

Addendum 8 for Projects With Location Changes Awarded  
Funding Through the Alternative and Renewable Fuel and Vehicle  
Technology Program Under Solicitation PON-13-606 – Electric  
Vehicle Charging Infrastructure



CALIFORNIA  
ENERGY COMMISSION  
Edmund G. Brown Jr., Governor

SEPTEMBER 2015  
CEC-600-2014-002-AD8X

# CALIFORNIA ENERGY COMMISSION

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## ADDENDUM 8

The *Localized Health Impacts (LHI) Report for Selected Projects Awarded Funding Through the Alternative and Renewable Fuel and Vehicle Technology Program Under Solicitation PON-13-606* was posted April 11, 2014 (CEC-600-2014-002).<sup>1</sup> This addendum uses the same approach to assess the localized health impacts for one project with locations changes and one project with added locations. Southern California Public Power Authority proposes to change locations for five sites, which include one Level 2 (L2) electric vehicle (EV) charger with a dual port and four direct current fast chargers (DCFC). The City of San Diego proposes to add three locations, which include three L2 chargers with eight charging ports. The original and new locations are described in Table 1, along with environmental justice indicators and new surroundings.

**Table 1: Original and New Site Locations for Southern California Public Power Authority and Added Site Locations for the City of San Diego With Environmental Justice (EJ) Indicators<sup>2</sup> and New Surroundings**

Grantee/Original Site Locations	New Site Locations	EJ Indictors for New Locations	Surroundings for New Locations (within 1-mile radius)
<b>Southern California Public Power Authority</b> Cerritos Civic Center 18125 Bloomfield Avenue Cerritos, CA 90703	Cerritos Center for the Performing Arts 12700 Center Court Drive Cerritos, CA 90703	Minority and Age	14 schools, 6 day care centers, and 8 medical offices/hospitals
<b>Southern California Public Power Authority</b> Distributing Station 135 121 South Church Lane Los Angeles, CA 90049	Distribution Station 28 11170 Nebraska Avenue Los Angeles, CA 90025	Poverty, Unemployment, and Minority	12 schools, 9 day care centers, and 12 medical offices/hospitals
<b>Southern California Public Power Authority</b> Stoneridge Towne Center 27100 Eucalyptus Avenue Moreno Valley, CA 92555	Moreno Valley Walmart Supercenter 12721 Moreno Beach Drive Moreno Valley, CA 92555	Poverty, Unemployment, Minority, and Age	2 schools, no day care centers, and 2 medical offices/hospitals

<sup>1</sup> Brecht, Patrick, Jennifer Allen, Lindsee Tanimoto. 2014. *Localized Health Impacts Report*. California Energy Commission, Fuels and Transportation Division. Publication Number: CEC-600-2014-002.

<sup>2</sup> The EJ indicators follow: (i.) minority subset represents more than 30 percent of a given city's population (2010), (ii.) city's poverty exceeds California's poverty level of 15.9 percent (2009-2013), (iii.) city's unemployment rate exceeds California's unemployment rate of 6.2 percent as of July 2015, and (iv.) city's percentage of persons younger than 5 years of age or older than 65 years of age is 20 percent higher than then California's average. For the entire state, the percentage of persons under the age of 5 years is 6.8 percent, and the percentage of persons over the age of 65 years is 11.4 percent.

<b>Grantee/Original Site Locations</b>	<b>New Site Locations</b>	<b>EJ Indictors for New Locations</b>	<b>Surroundings for New Locations (within 1-mile radius)</b>
<b>Southern California Public Power Authority</b> City of Pasadena's Public Parking Structure 171 North Raymond Avenue Pasadena, CA 91103	Del Mar Station Parking Structure 240 South Raymond Street Pasadena, CA 91105	Unemployment and Minority	22 schools, 8 day care centers, and 25 medical centers/hospitals
<b>Southern California Public Power Authority</b> City of Corporation Yard 8095 Lincoln Avenue Riverside, CA 92504	Riverside City Hall 3900 Main Street Riverside, CA 92522	Poverty, Unemployment, and Minority	14 schools, 5 day care centers, and 13 medical centers/hospitals
<b>Grantee</b>	<b>Added Site Locations</b>	<b>EJ Indictors for Added Locations</b>	<b>Surroundings for Added Locations (within 1-mile radius)</b>
<b>City of San Diego</b>	9601 Ridgehaven Court San Diego, CA 92123	None	16 schools, 9 day care centers, and 12 medical centers/hospitals
<b>City of San Diego</b>	Ocean Beach Bike Path Parking Lot San Diego, CA 92109	None	8 schools, 8 day care centers, and 6 medical centers/hospitals
<b>City of San Diego</b>	1950 Main Street San Diego, CA 92113	None	12 schools, 6 day care centers, and 12 medical centers/hospitals

Source: Energy Commission staff analysis

## Air Quality and EJ Indicators

All eight locations are in nonattainment zones for ozone, particulate matter (PM<sup>3</sup>) 2.5 and PM 10. Moreno Valley has four EJ indicators, Los Angeles and Riverside have three, and Cerritos and Pasadena have two each. San Diego has no EJ indicators. If a project site is in a nonattainment zone and has more than one environmental justice (EJ) indicator, as shown in Table 2, it is considered a high-risk community, according to the Environmental Justice Screening Method<sup>4</sup>. Therefore, all five site locations for Southern California Public Power Authority are considered in high-risk communities.

<sup>3</sup> "Particulate matter" is unburned fuel particles that form smoke or soot and stick to lung tissue when inhaled. The numbers stand for microns in diameter.

<sup>4</sup> California Air Resources Board (ARB), *Air Pollution and Environmental Justice, Integrating Indicators of Cumulative Impact and Socio-Economic Vulnerability Into Regulatory Decision-Making*, 2010. (Sacramento,

**Table 2: EJ Indicators Compared With California**

Yellow highlighted percentages indicate EJ indicators

	<b>Below Poverty Level (2009 – 2013)</b>	<b>Black Persons (2010)</b>	<b>American Indian and/or Alaska Native (2010)</b>	<b>Asian and/or Pacific Islander (2010)</b>	<b>Persons of Hispanic or Latino Origin (2010)</b>	<b>Persons Under 5 Years of Age (2010)</b>	<b>Persons Over 65 Years of Age (2010)</b>	<b>Unemployment (July 2015)</b>
California	15.9%	6.2%	1.0%	13.0%	37.6%	6.8%	11.4%	6.2%
EJ Indicators	>15.9%	>30%	>30%	>30%	>30%	>8.16%	>13.8%	>6.2%
Cerritos	5.5%	6.9%	0.3%	61.9%	12.0%	3.9%	17.7%	5.4%
Los Angeles	22.0%	9.6%	0.7%	11.3%	48.5%	6.6%	10.5%	7.7%
Moreno Valley	19.5%	18.0%	0.9%	6.1%	54.4%	8.4%	6.3%	7.0%
Pasadena	13.2%	10.7%	0.6%	14.3%	33.7%	6.0%	13.5%	6.5%
Riverside	19.1%	7.0%	1.1%	7.4%	49.0%	7.2%	8.6%	6.3%
San Diego	15.6%	6.7%	0.6%	15.9%	28.8%	6.2%	10.7%	5.1%

Sources: Unemployment information from the State of California, Employee Development Department Labor Market Information Div.: <http://www.labormarketinfo.edd.ca.gov/data/unemployment-and-labor-force.html#Tool>. Demographics from: U.S. Department of Commerce, U.S. Census Bureau, <http://quickfacts.census.gov/qfd/states/06/0616378.html> and [http://factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml](http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml)

## Equivalent Gasoline Gallons Displaced

The estimated equivalent gallons of gasoline displaced is based on 23.9 miles per gallon of gasoline due to electric vehicle miles traveled (VMT). The estimated electric VMT and the estimated total equivalent gasoline gallons displaced per year for Southern California Public Power Authority remains unchanged from the original *LHI*. The additional three L2 chargers (1 dual-port and 2 single-port) for San Diego will result in 182,138 estimated electric VMT per year, and an estimated total equivalent gasoline gallons displaced per year of 7,621.

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## **Location Analysis and Community Impacts**

Based on staff's assessment of the proposed new site locations for Southern California Public Power Authority and the added locations for San Diego, it is expected that the surrounding communities will not be disproportionately impacted by implementing the proposed projects. While overall air quality depends on several factors, the Energy Commission expects that air quality will improve over time where the chargers are proposed as they support a growing number of EVs. As more plug-in EVs enter the market and displace gasoline, tailpipe pollutants will decrease. The anticipated impact to the communities where the charges will be located is likely positive in terms of cleaner air.